

Application No. 10/044,896  
Supplemental Amendment (dated August 10, 2005  
Reply to Office Action of May 19, 2005

This listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (Previously presented) An anti-IFN- $\alpha$  monoclonal antibody which binds to and neutralizes a biological activity of at least IFN- $\alpha$  subtypes IFN- $\alpha$ 1, IFN- $\alpha$ 2, IFN- $\alpha$ 4, IFN- $\alpha$ 5, IFN- $\alpha$ 8, IFN- $\alpha$ 10, and IFN- $\alpha$ 21.
2. (Original) The antibody of claim 1 which is a murine antibody.
3. (Original) The antibody of claim 1 which is a humanized antibody.
4. (Original) The antibody of claim 1 which is a human antibody.
5. (Original) The antibody of claim 1 wherein said biological activity is antiviral activity.
6. (Original) The antibody of claim 5 wherein said antibody is capable of neutralizing at least 70% of the antiviral activity of said IFN- $\alpha$  subtypes.
7. (Original) The antibody of claim 5 wherein said antibody is capable of neutralizing at least 80% of the antiviral activity of said IFN- $\alpha$  subtypes.
8. (Original) The antibody of claim 5 wherein said antibody is capable of neutralizing at least 90% of the antiviral activity of said IFN- $\alpha$  subtypes.
9. (Original) The antibody of claim 5 wherein said antibody is capable of neutralizing at least 99% of the antiviral activity of said IFN- $\alpha$  subtypes.

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10. (Cancelled)

11. (Previously presented) The antibody of claim 1 which is murine anti-human IFN- $\alpha$  monoclonal antibody 9F3 comprising an amino acid sequence of the monoclonal antibody produced by a hybridoma having ATCC Accession No. PTA-2917, or progeny thereof or a humanized or chimeric form thereof.

12. (Previously presented) The antibody of claim 11 which is humanized anti-human IFN- $\alpha$  monoclonal antibody comprising a light chain variable domain of SEQ ID NO:3 and a heavy chain variable domain of SEQ ID NO:5.

13. (Original) The antibody of claim 1 which binds essentially the same IFN- $\alpha$  epitope as the anti- IFN- $\alpha$  antibody produced by the hybridoma cell line deposited with ATCC on January 18, 2001 and having accession No. PTA-2917.

14. (Original) The antibody of claim 1 which is of the IgG class.

15. (Original) The antibody of claim 14 which has an IgG<sub>1</sub>, IgG<sub>2</sub>, IgG<sub>3</sub>, or IgG<sub>4</sub> isotype.

16. (Original) The antibody of claim 1 which is an antibody fragment.

17. (Original) The antibody of claim 16 which is a Fab fragment.

18. (Original) The antibody of claim 16 which is a F(ab')<sub>2</sub> fragment.

19. (Original) The antibody of claim 16 which is a Fab' fragment.

20. (Currently amended) An anti-IFN- $\alpha$  antibody, or antigen binding fragment

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thereof, comprising a heavy chain variable domain and a light chain variable domain, wherein the light chain variable domain comprises the following CDR's:

- (a) L1 of the formula RASQSVSTSSYSYMH (SEQ ID NO: 7);
- (b) L2 of the formula YASNLES (SEQ ID NO: 8); and
- (c) L3 of the formula QHSWGIPRTF (SEQ ID NO: 9);

and wherein the antibody or antigen binding fragment specifically binds to at least IFN- $\alpha$  subtypes IFN- $\alpha$ 1, IFN- $\alpha$ 2, IFN- $\alpha$ 4, IFN- $\alpha$ 5, IFN- $\alpha$ 8, IFN- $\alpha$ 10, and IFN- $\alpha$ 21.

21. (Currently amended) The ~~anti-IFN- $\alpha$  antibody~~ antigen binding fragment of claim 20 which is comprises a Fab.

22. (Currently amended) An ~~anti-IFN- $\alpha$  antibody~~, or antigen binding fragment thereof, comprising a light chain variable domain and a heavy chain variable domain, wherein the heavy chain variable domain comprises the following CDR's:

- (a) H1 of the formula GYTFTFYJIIH (SEQ ID NO: 10);
- (b) H2 of the formula SINPDYDITNYNQRFKG (SEQ ID NO: 11); and
- (c) H3 of the formula WISDFFDY (SEQ ID NO: 12);

and wherein the antibody or antigen binding fragment specifically binds to at least IFN- $\alpha$  subtypes IFN- $\alpha$ 1, IFN- $\alpha$ 2, IFN- $\alpha$ 4, IFN- $\alpha$ 5, IFN- $\alpha$ 8, IFN- $\alpha$ 10, and IFN- $\alpha$ 21.

23. (Currently amended) The ~~anti-IFN- $\alpha$  antibody~~ antigen binding fragment of claim 22 which is comprises a Fab.

24. (Previously presented) An anti-IFN- $\alpha$  antibody comprising  
(A) at least one light chain or an antigen binding fragment thereof, comprising the following CDR's:

- (a) L1 of the formula RASQSVSTSSYSYMH (SEQ ID NO: 7);
- (b) L2 of the formula YASNLES (SEQ ID NO: 8); and
- (c) L3 of the formula QHSWGIPRTF (SEQ ID NO: 9); and

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- (B) at least one heavy chain or an antigen binding fragment thereof, comprising the following CDR's:
- (a) H1 of the formula GYTFTEYIIH (SEQ ID NO: 10);
  - (b) H2 of the formula SINPDYDITNYNQRFKG (SEQ ID NO: 11); and
  - (c) H3 of the formula WISDFFDY (SEQ ID NO: 12).

25. (Original) The antibody of claim 24 having a homo-tetrameric structure composed of two disulfide-bonded antibody heavy chain-light chain pairs.

26. (Original) The antibody of claim 24 which is a linear antibody.

27. (Original) The antibody of claim 24 which is a murine antibody.

28. (Original) The antibody of claim 24 which is a chimeric antibody.

29. (Original) The antibody of claim 24 which is a humanized antibody.

30. (Original) The antibody of claim 24 which is a human antibody.

31-41. (Cancelled)

42. (Previously presented) A hybridoma cell line comprising a nucleic acid molecule encoding an antibody of claim 1.

43. (Original) A hybridoma cell line deposited with ATCC on January 18, 2001 and having accession No. PTA-2917.

44. (Original) An antibody produced by the hybridoma cell line of claim 42.

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45. (Original) A pharmaceutical composition comprising an effective amount of the antibody of claim 1 in admixture with a pharmaceutically acceptable carrier.

46. (Original) A pharmaceutical composition comprising an effective amount of the antibody of claim 11 in admixture with a pharmaceutically acceptable carrier.

47. (Original) A pharmaceutical composition comprising an effective amount of the antibody of claim 12 in admixture with a pharmaceutically acceptable carrier.

48. (Original) A pharmaceutical composition comprising an effective amount of the antibody of claim 24 in admixture with a pharmaceutically acceptable carrier.

49.-54. (Cancelled)

55. (Currently amended) ~~An~~ The anti-IFN- $\alpha$  antibody of claim 1 which does not bind to or neutralize IFN- $\beta$ .

56. (Currently amended) ~~An~~ The anti-IFN- $\alpha$  antibody of claim 1 which specifically binds to and neutralizes all IFN- $\alpha$ [[1]] subtypes.

57. (Previously presented) A cell line comprising a nucleic acid molecule encoding an antibody of claim 1.

58. (Previously presented) A cell line comprising a nucleic acid molecule encoding an antibody of claim 24.

59. (Previously presented) A cell line comprising a nucleic acid molecule encoding an antibody of claim 12.

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60. (New) A pharmaceutical composition comprising an effective amount of the antibody of claim 20 in admixture with a pharmaceutically acceptable carrier.

61. (New) A pharmaceutical composition comprising an effective amount of the antibody of claim 22 in admixture with a pharmaceutically acceptable carrier.

62. (New) A cell line comprising a nucleic acid molecule encoding an antibody of claim 20.

63. (New) A cell line comprising a nucleic acid molecule encoding an antibody of claim 22.